REMARKS/ARGUMENTS

1.   Objection to the Abstract

On page 2 of the Office Action dated April 2, 2004, the Examiner objected to the abstract of the application, alleging that the length of the abstract exceeds 150 words, in violation of MPEP §608.01(b).   In accordance with the Examiner's suggestion, Applicants have revised the abstract to be within 50 to 150 words.

2.   Objection to Claims 9, 18 and 27

The Examiner objected to claims 9,18 and 27 as being dependent upon a rejected base claim. Applicants respectfully request that this objection be withdrawn in light of the remarks regarding the rejected base claims submitted herein.

3.   Rejection of Claims under 35 U.S.C. §102 over Wagner *et al.*

Claims 1-5, 10-14 and 19-23 have been rejected under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Patent No. 6,002,395, issued to Wagner *et al.* (hereinafter Wagner). *See* Office Action, at Page 3. Applicants respectfully traverse this rejection.

Wagner, the cited reference, teaches a builder, tester, and runtime integration system and method for a graphical touch user interface (e.g., point-of-sale (POS) touch screen interface system). More specifically, Wagner teaches a system and method of building or creating a graphical user interface wherein the system and method includes the steps of choosing the controls that comprise a screen, accessing the menu items and their dialogs to gather the controls' information, and saving the dialog information into an object's slots for a screen. The system and method of Wagner for constructing a graphical touch screen user interface includes a builder tool. The builder tool utilizes Natural Interface for Computing Environments (NICE®) controls to produce an actual user interface displayed on video display. *See* Wagner, column 4, lines 27-29.

The present invention, as defined by claim 1, includes a method comprising accepting user input specifying a geometrical arrangement of two or more buttons on one or more displayed pages, accepting user input labeling at least two of the buttons, accepting user input defining at least one interaction between the labeled buttons, accepting user input specifying at least one constraint cost for the defined

interaction, and assigning the labels among the buttons such that the at least one constraint cost is substantially optimized. Thus, as indicated by the language of claim 1, the present invention uses an optimization approach to guide the multifunction display design.

By its language, 35 U.S.C. §102 requires that each and every element of a claim be present in a single cited reference to properly have the reference anticipate the claim. *See In re Bond*, 910 F.2d 831, 15 USPQ2d 1566, 1567 (Fed. Cir. 1992), *citing Diversitech Corp. v. Century Steps, Inc.*, 850 F.2d 675, 677, 7 USPQ2d 1315, 1317 (Fed. Cir. 1988); *Lindemann Maschinenfabrik v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984); *Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 24 USPQ2d 1321, 1326 (Fed. Cir. 1992); and *Elmer v. ICC Fabricating Inc.*, 67 F.3d 1571, 36 USPQ2d 1417, 1419 (Fed. Cir. 1995).

Applicants respectfully submit that the cited reference Wagner does not teach each and every element of the present invention. More specifically, Applicants respectfully submit that Wagner fails to disclose a method including, "assigning the labels of the at least two buttons among the two or more buttons on one or more displayed pages such that the at least one constraint cost is substantially optimized," for example.

Rather, Wagner merely teaches a builder tool that may be utilized to build a new touch screen interface or to modify the interface. Wagner also teaches a tester tool for testing the interface and a runtime system for executing the interface logic. Wagner does not, however, disclose any information regarding an optimization approach, as does the present invention (that is, Wagner does not assign labels such that the at least one constraint cost is substantially optimized). Applicants respectfully submit that merely building, modifying, testing, and executing a new touch screen interface is not tantamount to assigning a button label such that the at least one constraint cost is substantially optimized.

For the reasons set forth above, it is submitted that claim 1 is properly allowable. Dependent claims 2-5 are likewise properly allowable, as they depend from an allowable independent claim. Independent claims 10 and 19 include language common to that of claim 1 and as such are also properly allowable.

Dependent claims 11-14 depend from claim 10, and dependent claims 20-23 depend from claim 19. As such, these claims are also properly allowable.

4.   Rejection of Claims under 35 U.S.C. §103 over Wagner in view of Ikemoto *et al.*

Claims 6-7, 15-16 and 24-25 have been rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Wagner in view of U.S. Patent No. 5,969,717, issued to Ikemoto (hereinafter Ikemoto).

For example, the Examiner has alleged that Wagner teaches all of the steps of claim 6 except "accepting user input identifying at least one relationship between the labeled at least two buttons, said relationship selected from a relationship group including a Fitts'-movement interaction, a Euclidean-distance interaction, a City-Block-distance interaction, an X-directed interaction, and a Y-directed interaction." The Examiner has alleged, however, that Ikemoto teaches "identifying the relationship between buttons including a position and distance interaction of the buttons." *See* Official Action, at Page 6. The Examiner further alleges that the Fitt's movement interaction, the Euclidean-distance interaction, the City-block distance interaction, the X-directed interaction and the Y-directed interaction of the present invention are all distance related relationships and "could be included in the group of relationships defined between the labeled buttons." This rejection is respectfully traversed.

The official action has failed to establish a prima facie case of obviousness and has fundamentally erred in assessing the scope and content of the prior art. Dependent claim 6 depends from independent claim 1. As such and as discussed in section 3, *supra*, there is no teaching or suggestion in Wagner of "assigning the labels of the at least two buttons among the two or more buttons on one or more displayed pages such that the at least one constraint cost is substantially optimized," as in the present invention.

Likewise, Ikemoto offers no teaching or suggestion of the above referenced step. Ikemoto merely relates to the design of a GUI system and is does not disclose any information regarding optimization. Ikeomoto makes reference to relationships and consistency across the GUI system such as what types of GUI devices should be used for and across the GUI system. Accordingly, there is nothing in Wagner or Ikemoto, taken alone or in combination, that would have rendered the subject matter

of claim 6 obvious. Moreover, the Office Action has identified nothing in the prior art as a whole that would have rendered the subject matter of claim 6 obvious. It follows that claim 6 is properly allowable. Claims 15 and 24, system and means plus function claims, respectively, include language common to that of claim 6. Thus, these claims are also properly allowable for the reasons offered above with respect to claim 6.

Regarding claim 7, there is no teaching or suggestion in Wagner, Ikemoto, or in the prior art as a whole of "accepting user input specifying at least one constraint cost for the defined at least one interaction," nor is there a teaching or suggestion in Wagner of "assigning the labels of the at least two buttons among the two or more buttons on one or more displayed pages such that the at least one constraint cost is substantially optimized."

Dependent claims 16 and 25, system and means plus function language claims, respectively, include language common to that of claim 7. Thus, these claims are also properly allowable for the reasons offered above with respect to claim 7.

5. Rejection of Claims under 35 U.S.C. §103 over Wagner in view of Shimogori

Claims 8, 17 and 26 have been rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Wagner in view of U.S. Patent 5,973,686, issued to Shimogori (hereinafter Shimogori).
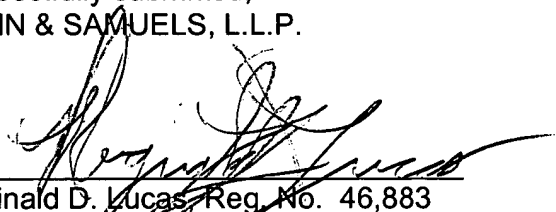
For example, the Examiner has alleged that Wagner teaches all of the steps of claim 8 except "accepting user input specifying at least one weighting factor to be associated with the specified at least one constraint cost." The Examiner has alleged, however, that Shimogori teaches at "least one weighting factor (weight information) associated with the specified at least one cost (rules)." *See* Official Action, at Page 8. This rejection is respectfully traversed.

The official action has failed to establish a prima facie case of obviousness and has fundamentally erred in assessing the scope and content of the prior art. Dependent claim 8 depends from independent claim 1. As such and as discussed in section 4, *supra*, there is no teaching or suggestion in Wagner of "assigning the labels of the at least two buttons among the two or more buttons on one or more displayed pages such that the at least one constraint cost is substantially optimized."

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Likewise, Shimogori offers no teaching or suggestion of the above referenced steps. Accordingly, there is nothing in Wagner or Shimogori, taken alone or in combination, that would have rendered the subject matter of claim 8 obvious. Moreover, the Office Action has identified nothing in the prior art as a whole that would have rendered the subject matter of claim 8 obvious. It follows that claim 8 is properly allowable. Claims 17 and 26 are system and means plus function language claims, respectively, and include language common to that of claim 8. Thus, these claims are also properly allowable for the reasons offered above with respect to claim 8.

In view of the above Remarks, Applicants believe that all of the claims of the present invention are allowable and that the application is in condition for allowance. If the Examiner believes that the prosecution could be advanced through a telephone conversation, then the Examiner is invited to telephone the undersigned. Favorable action in this regard is earnestly solicited.

Respectfully submitted,
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